



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,599	10/27/2003	Terry C. Laver	813.001	9927
7590	12/06/2005		EXAMINER	
DEWITT ROSS & STEVENS S.C. US Bank Building 8000 Excelsior Drive Suite 401 Madison, WI 53717-1914			DEL SOLE, JOSEPH S	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/699,599	LAVER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Joseph S. Del Sole	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 25-40 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-24 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 27 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____.   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/14/05</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____.                                   |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-24, drawn to an apparatus, classified in class 425, subclass 131.1.
  - II. Claims 25-40, drawn to methods, classified in class 264, subclass 45.9.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus can be used to practice another and materially different process, such as an extruder for extruding solid chocolate candy bars.
3. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Sara on 1 November 2005 (by Matt Daniels, AU1732) a provisional election was made with traverse to prosecute the invention of Group I, claims 1-24. Affirmation of this election must be made by applicant in replying to this Office action. Claims 25-40 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Objections***

6. Claims 4, 5, 6, 12, 13, 17 and 19 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 4 and 19 fail to further limit the parent claims because there is no structure given that enables a prevention of backflow; allowing gas to be flown through inherently prevents backflow.

Claim 5 fails to further limit claim 1 because it is already stated that the cylinder is not located inside of the extruder and the ability to add "high pressure gas" also does not further limit the claim structurally.

Claim 6 fails to further limit claim 1 because the application of heat or cool is a result of the relative temperatures of the product and the fluid through the lubricating assembly and do not actually further structurally limit the lubricating assembly of claim 1.

Claim 12 fails to further limit claim 1 because it sets forth method limitations only and does not further structurally limit the apparatus.

Claim 13 fails to further limit claim 1 because there is no additional structure recited, only method results.

Claims 16-24 are objected to because they are each dependent on claim 1, however they use the terminology of claim 15. Either the dependency of claims 16-24 should be changed to claim 15 or the terminology of claims 16-24 should be amended to match claim 1. The Examiner notes that should the latter step be taken, there would likely be created instances of claims being duplicates of one another.

Claim 17 fails to further limit claim 15 because there is no additional structure recited, only method results.

Claim 21 fails to further limit claim 1 because it sets forth method limitations only and does not further structurally limit the apparatus.

### ***Drawings***

7. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because **a)** the lines, numbers and letters are not uniform, clean and well defined (of a generally poor quality) in each of the 10 figures (37 CFR 1.84(l)). Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Specification***

8. The disclosure is objected to because of the following informalities: **a)** at page 24, lines 13-14 "in sequence that transition die 200" is grammatically unclear; **b)** at page

24, line 15 "block 222 file is being setting" is grammatically unclear; and c) at page 26, lines 4-5 "are very similar in." is grammatically unclear.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-14, 16 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the device" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the relationship between the two channels and the rest of the apparatus.

Claim 10 is vague and indefinite because it is unclear what the lubricator is connected to (note that the claim appears to end prematurely).

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See

MPEP § 2172.01. The omitted structural cooperative relationships are: the relationship between the two channels and the rest of the system.

Claim 20 recites the limitation "the extruder" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 1722

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laver (5,516,472) in view of Hildebolt (4,039,691) and further in view of either Woodhams (5,474,722) or Lightle et al (5,753,161).

Laver et al teach an extruder (Fig 1, #12); a plurality of dies after the extruder (Fig 1, #14); a lubricating assembly to shape and form a composite plank from the material (Fig 1, #95 and col 3, lines 10-37); a cooling tank (Fig 1, #110); a conveyor having opposing belts for pulling the plank through the cooling tank (Fig 1, #112; col 13, lines 28-31, the Examiner notes that opposing belts are well known equivalents to the roller and puling mechanism); a saw connected to the conveyor (col 6, lines 5-13); the die has an adapter die (Fig 1, #16), a transition die (Fig 1, #25), a stranding die (Fig 1, #40), a molding die (Fig 1, #78) and a setting die (Fig 1, #94); the apparatus having a pressure booster (col 13, line 1); the assembly acts as a molding cooler to quickly lower the temperature of the extruded material and thus shape the outer profile of the plank (col 12, lines 40-48); a tempering block (Fig 1, the beginning of #110); a hopper (Fig 1, #10); a device for mixing (Fig 1, #s 8, 10 and 12); a calibrator (Fig 1, #s 95, 110, 112 and 114); a calibrator for shaping the product (Fig 1, #95); a conveyor (Fig 1, #112); .

Laver et al fail to teach a stacking table adjacent the saw and fails to teach a gas injecting cylinder with pins.

Hildebolt teaches a cylinder (Fig 1, #6) after an extruder (Fig 1, #2) having a plurality of pins in the center orifice for injecting a gas into a material between two

Art Unit: 1722

channels; the cylinder is located outside of the extruder (Fig 1); the cylinder adds pressure between dies (Fig 1, the dies include #s 4 and 7) for the purpose of texturizing an extruded product (abstract). Woodhams teaches that it is well known to cut and stack a product after drawing it through a conveyor (incidentally a conveyor utilizing opposing belts) for the purpose of collecting cut product (col 5, line 67 - col 6, line 47). Lightle et al (5,753,161) teach that it is well known to cut and stack a product after foaming for the purpose of collecting cut product (col 6, lines 1-16).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Laver with steam and a stacking mechanism as taught by Hildebolt, Woodhams and Lightle et al above because such modification enable a product to be texturized before cooling and collected after cutting.

15. Claims 1, 3-15 and 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laver (5,516,472) in view of Hoenke (3,954,929) and further in view of either Woodhams (5,474,722) or Lightle et al (5,753,161).

Laver et al teach an extruder (Fig 1, #12); a plurality of dies after the extruder (Fig 1, #14); a lubricating assembly to shape and form a composite plank from the material (Fig 1, #95 and col 3, lines 10-37); a cooling tank (Fig 1, #110); a conveyor having opposing belts for pulling the plank through the cooling tank (Fig 1, #112; col 13, lines 28-31, the Examiner notes that opposing belts are well known equivalents to the roller and puling mechanism); a saw connected to the conveyor (col 6, lines 5-13); the die has an adapter die (Fig 1, #16), a transition die (Fig 1, #25), a stranding die (Fig 1,

#40), a molding die (Fig 1, #78) and a setting die (Fig 1, #94); the apparatus having a pressure booster (col 13, line 1); the assembly acts as a molding cooler to quickly lower the temperature of the extruded material and thus shape the outer profile of the plank (col 12, lines 40-48); a tempering block (Fig 1, the beginning of #110); a hopper (Fig 1, #10); a device for mixing (Fig 1, #s 8, 10 and 12); a calibrator (Fig 1, #s 95, 110, 112 and 114); a calibrator for shaping the product (Fig 1, #95); a conveyor (Fig 1, #112); .

Laver et al fail to teach a stacking table adjacent the saw and fails to teach a gas injecting cylinder with pins.

Hoenke teaches a cylinder (Fig 1, #18) after an extruder (Fig 1, #11) having a pin; the cylinder (Fig 1, #23) is located outside of the extruder (Fig 1); the cylinder adds pressure between dies (Fig 1, the dies include # 12 and the outlet of #17) for the purpose of foaming a product (col 2, line 47 - col 3, line 14). Woodhams teaches that it is well known to cut and stack a product after drawing it through a conveyor (incidentally a conveyor utilizing opposing belts) for the purpose of collecting cut product (col 5, line 67 - col 6, line 47). Lightle et al (5,753,161) teach that it is well known to cut and stack a product after foaming for the purpose of collecting cut product (col 6, lines 1-16). It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Laver with steam and a stacking mechanism as taught by Hoenke, Woodhams and Lightle et al above because such modification enable a product to be foamed and collected after cutting.

16. Claims 1, 3-15 and 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laver (5,516,472) in view of Colton et al (5,160,674) and further in view of either Woodhams (5,474,722) or Lightle et al (5,753,161).

Laver et al teach an extruder (Fig 1, #12); a plurality of dies after the extruder (Fig 1, #14); a lubricating assembly to shape and form a composite plank from the material (Fig 1, #95 and col 3, lines 10-37); a cooling tank (Fig 1, #110); a conveyor having opposing belts for pulling the plank through the cooling tank (Fig 1, #112; col 13, lines 28-31, the Examiner notes that opposing belts are well known equivalents to the roller and puling mechanism); a saw connected to the conveyor (col 6, lines 5-13); the die has an adapter die (Fig 1, #16), a transition die (Fig 1, #25), a stranding die (Fig 1, #40), a molding die (Fig 1, #78) and a setting die (Fig 1, #94); the apparatus having a pressure booster (col 13, line 1); the assembly acts as a molding cooler to quickly lower the temperature of the extruded material and thus shape the outer profile of the plank (col 12, lines 40-48); a tempering block (Fig 1, the beginning of #110); a hopper (Fig 1, #10); a device for mixing (Fig 1, #s 8, 10 and 12); a calibrator (Fig 1, #s 95, 110, 112 and 114); a calibrator for shaping the product (Fig 1, #95); a conveyor (Fig 1, #112); .

Laver et al fail to teach a stacking table adjacent the saw and fails to teach a gas injecting cylinder with pins.

Colton et al teach a cylinder (Fig 1, #22) after an extruder (Fig 1, #30) having a pin; the cylinder (Fig 1, #22) is located outside of the extruder (Fig 1); the cylinder adds pressure between dies (Fig 1, the dies include the outlet of #30 and the outlet of #20) for the purpose of foaming a product (col 2, lines 35-58). Woodhams teaches that it is

well known to cut and stack a product after drawing it through a conveyor (incidentally a conveyor utilizing opposing belts) for the purpose of collecting cut product (col 5, line 67 - col 6, line 47). Lightle et al (5,753,161) teach that it is well known to cut and stack a product after foaming for the purpose of collecting cut product (col 6, lines 1-16).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Laver with steam and a stacking mechanism as taught by Colton et al, Woodhams and Lightle et al above because such modification enable a product to be foamed and collected after cutting.

***References of Interest***

17. Zehner (6,498,205), Zehner et al (6,344,504), Brandt (6,117,924), Zehner et al (5,866,264) and Brandt et al (5,827,462) are cited of interest to show the state of the art. Furthermore, the Examiner notes that each of the references teach the same apparatus as is taught by Laver (5,516,472) and each could have be substituted as a primary reference above. Such was not done in the interest of brevity.
18. Harris (4,613,471), Zander et al (6,949,209), Baldwin et al (5,334,356), Klotzer (6,808,375) and Terhune et al (4,455,761) are cited of interest to show the state of the art.

***Examiner's Note***

19. The Examiner notes that a combination of claims 1, 2, 7, 8 and 9 would be allowable.

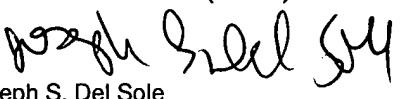
***Correspondence***

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph S. Del Sole whose telephone number is (571)

272-1130. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the Examiner by telephone are unsuccessful, Mr. Duane Smith can be reached at (571) 272-1166. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from the either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

  
Joseph S. Del Sole  
November 30, 2005